

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :						
Product line : MULTIMOUNTING	Product code : 13312431					
Frame : 100L Insulation class : F Duty cycle : S1 Ambient temperature : -20°C to +40°C Altitude : 1000 m.a.s.l. Protection degree : IP55 Design : N	Cooling method : IC411 - TEFC Mounting : B14T Rotation ¹ : Both (CW and CCW) Starting method : Direct On Line Approx. weight ² : 27.4 kg Moment of inertia (J) : 0.0090 kgm ²					
Output [kW]	2.2	2.2	2.2	2.2	2.2	
Poles	4	4	4	4	4	
Frequency [Hz]	50	50	50	50	60	
Rated voltage [V]	400	230	220/380	240/415	460	
Rated current [A]	2.41	4.82	8.33/4.82	8.14/4.71	4.06	
L. R. Amperes [A]	17.4	34.7	59.9/34.7	65.2/37.7	36.5	
LRC [A]	7.2	7.2	7.2	8.0	9.0	
No load current [A]	1.15	2.30	3.97/2.30	4.84/2.80	2.40	
Rated speed [RPM]	1425	1425	1425	1440	1745	
Slip [%]	5.00	5.00	5.00	4.00	3.06	
Rated torque [kgfm]	1.50	1.50	1.50	1.49	1.23	
Locked rotor torque [%]	229	229	229	270	280	
Breakdown torque [%]	280	280	280	320	350	
Service factor	1.00	1.00	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	80 K	
Locked rotor time	28s (cold) 16s (hot)	28s (cold) 16s (hot)	28s (cold) 16s (hot)	28s (cold) 16s (hot)	28s (cold) 16s (hot)	
Noise level ²	53.0 dB(A)	53.0 dB(A)	53.0 dB(A)	53.0 dB(A)	54.0 dB(A)	
Efficiency (%)	25%	0.000	0.000	0.000		
	50%	86.0	86.0	86.0	84.0	
	75%	86.5	86.5	86.5	85.8	
	100%	86.7	86.7	86.7	86.7	
Power Factor	25%	0.00	0.00	0.00		
	50%	0.60	0.60	0.60	0.51	
	75%	0.72	0.72	0.72	0.65	
	100%	0.80	0.80	0.80	0.75	
Losses at normative operating points (speed;torque), in percentage of rated output power						
Losses (%)	P1 (0,9;1,0)	14.8	14.8	14.8	14.8	11.3
	P2 (0,5;1,0)	13.2	13.2	13.2	13.2	10.1
	P3 (0,25;1,0)	12.9	12.9	12.9	12.9	9.9
	P4 (0,9;0,5)	6.8	6.8	6.8	6.8	5.2
	P5 (0,5;0,5)	5.0	5.0	5.0	5.0	3.8
	P6 (0,5;0,25)	3.2	3.2	3.2	3.2	2.5
	P7 (0,25;0,25)	2.4	2.4	2.4	2.4	1.8
Bearing type	Drive end : 6206 ZZ	Non drive end : 6205 ZZ	Foundation loads			
Sealing	Oil Seal	Oil Seal	Max. traction	: 93 kgf		
Lubrication interval	-	-	Max. compression	: 121 kgf		
Lubricant amount	-	-				
Lubricant type	Mobil Polyrex EM					
This revision replaces and cancel the previous one, which must be eliminated. (1) Looking the motor from the shaft end. (2) Measured at 1m and with tolerance of +3dB(A). (3) Approximate weight subject to changes after manufacturing process.			These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in IEC 60034-1.			
Rev.	Changes Summary		Performed	Checked	Date	
Performed by						
Checked by				Page	Revision	
Date	17/04/2023			1 / 23		

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer : _____

Notes

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	17/04/2023		2 / 23	

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer : _____

Thermal protection

ID	Application	Type	Quantity	Sensing Temperature
1	Winding	Thermistor - 2 wires	1 x Phase	155 °C

Rev.	Changes Summary	Performed	Checked	Date
Performed by				Page 3 / 23
Checked by				
Date	17/04/2023			
			Revision	

TORQUE AND CURRENT VS SPEED CURVE

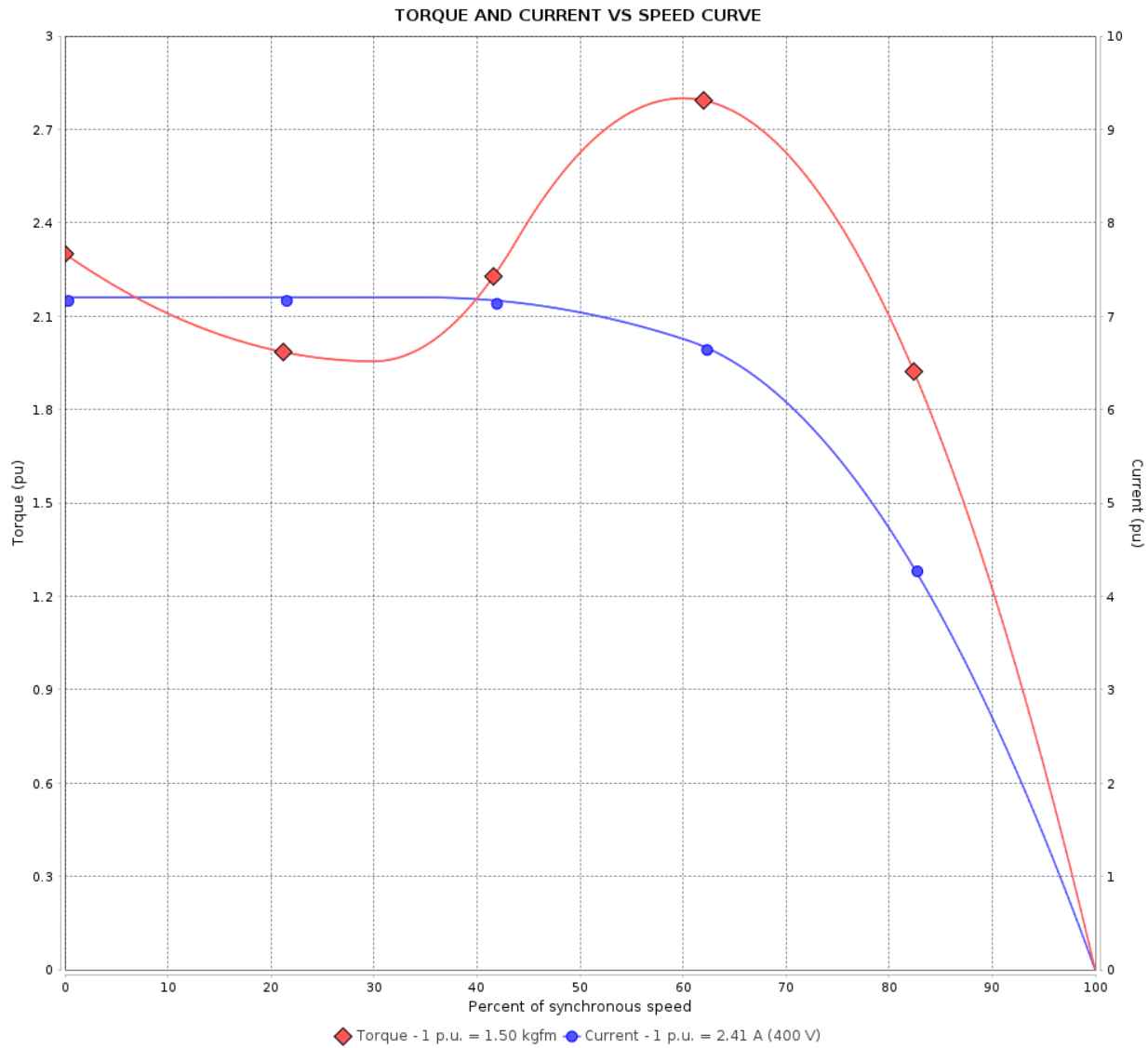
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : MULTIMOUNTING

Product code : 13312431



Performance : 400 V 50 Hz 4P

Rated current	: 2.41 A	Moment of inertia (J)	: 0.0090 kgm ²
LRC	: 7.2	Duty cycle	: S1
Rated torque	: 1.50 kgfm	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 1425 rpm	Design	: N

Locked rotor time : 28s (cold) 16s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		4 / 23		
Date	17/04/2023			

TORQUE AND CURRENT VS SPEED CURVE

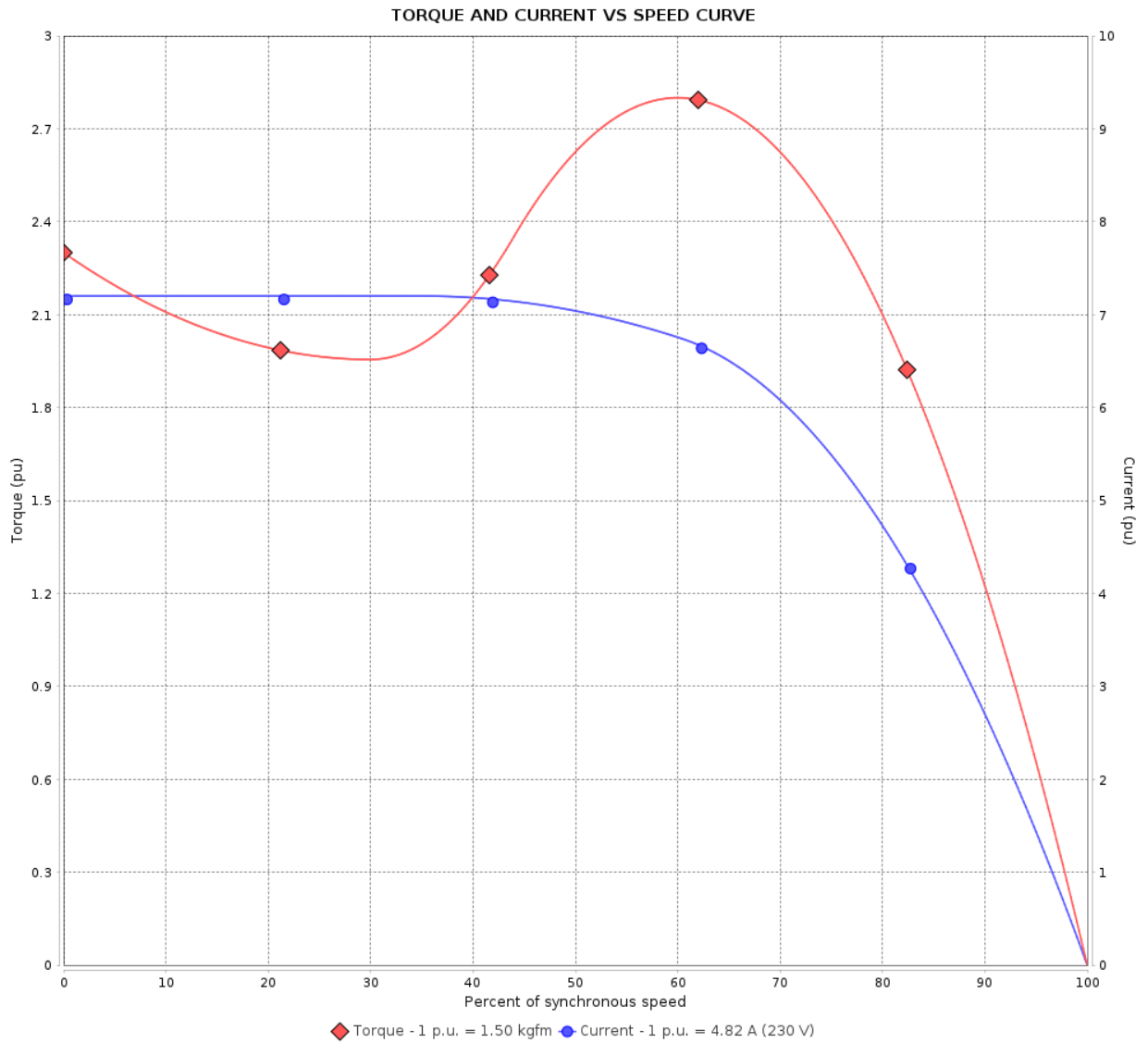
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : MULTIMOUNTING

Product code : 13312431



Performance : 230 V 50 Hz 4P

Rated current	: 4.82 A	Moment of inertia (J)	: 0.0090 kgm ²
LRC	: 7.2	Duty cycle	: S1
Rated torque	: 1.50 kgfm	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 1425 rpm	Design	: N

Locked rotor time : 28s (cold) 16s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		5 / 23		
Date	17/04/2023			

TORQUE AND CURRENT VS SPEED CURVE

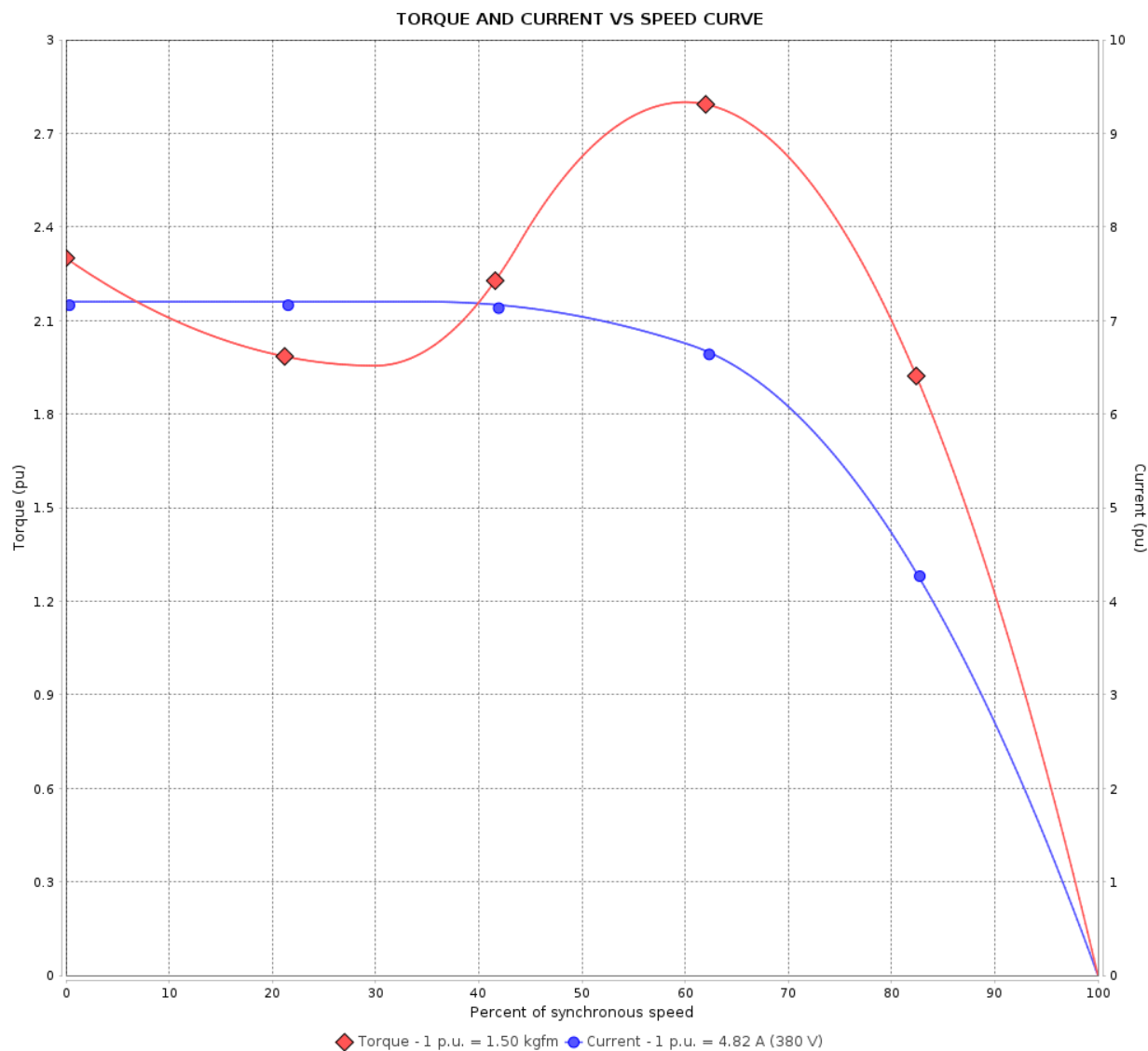
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : MULTIMOUNTING

Product code : 13312431



Performance : 220/380 V 50 Hz 4P

Rated current	: 8.33/4.82 A	Moment of inertia (J)	: 0.0090 kgm ²
LRC	: 7.2	Duty cycle	: S1
Rated torque	: 1.50 kgfm	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 1425 rpm	Design	: N

Locked rotor time : 28s (cold) 16s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 6 / 23	Revision
Checked by				
Date	17/04/2023			

TORQUE AND CURRENT VS SPEED CURVE

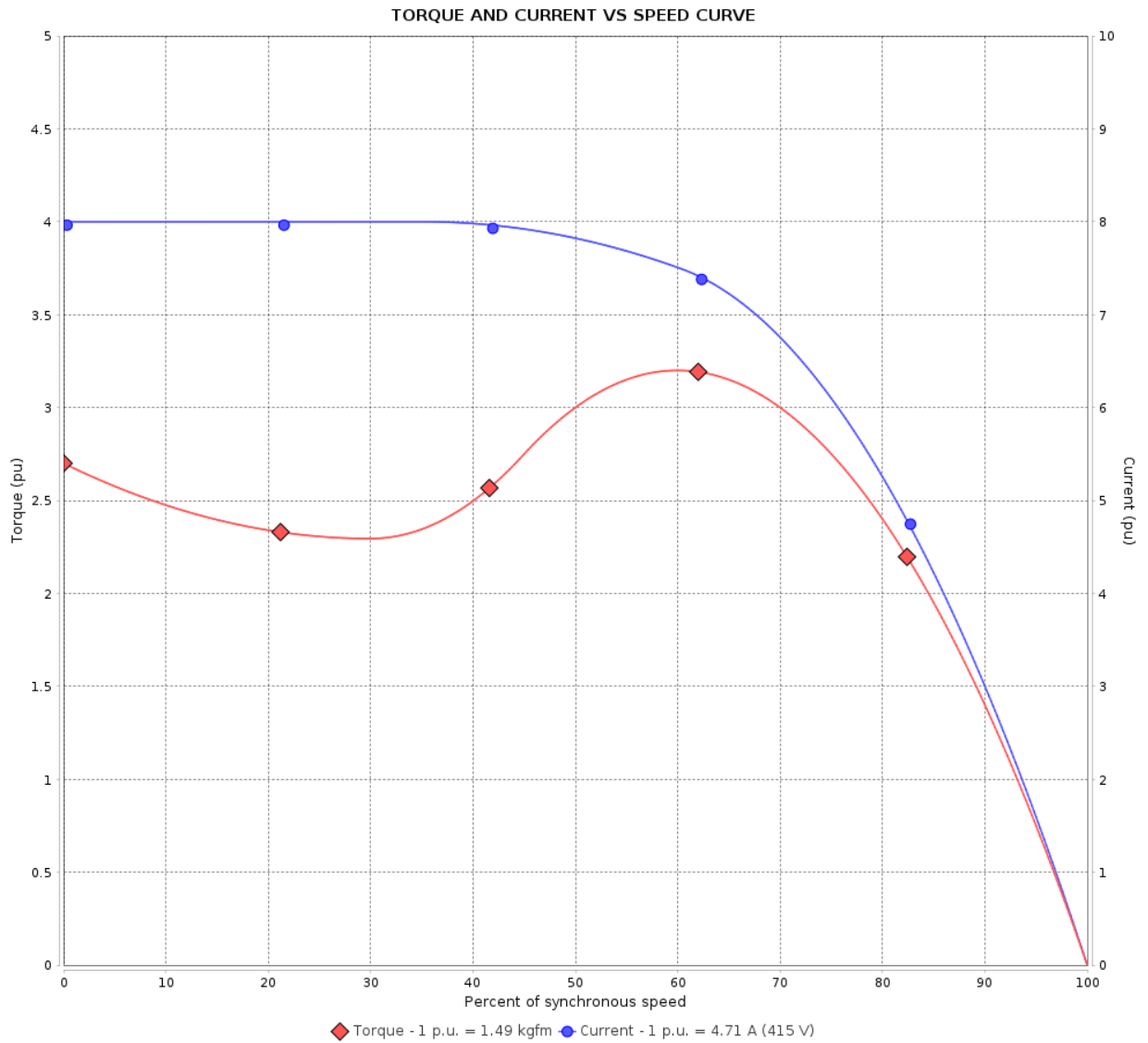
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : MULTIMOUNTING

Product code : 13312431



Performance : 240/415 V 50 Hz 4P

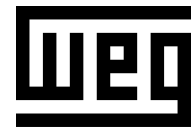
Rated current	: 8.14/4.71 A	Moment of inertia (J)	: 0.0090 kgm ²
LRC	: 8.0	Duty cycle	: S1
Rated torque	: 1.49 kgfm	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.00
Breakdown torque	: 320 %	Temperature rise	: 80 K
Rated speed	: 1440 rpm	Design	: N

Locked rotor time : 28s (cold) 16s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 7 / 23	Revision
Checked by				
Date	17/04/2023			

TORQUE AND CURRENT VS SPEED CURVE

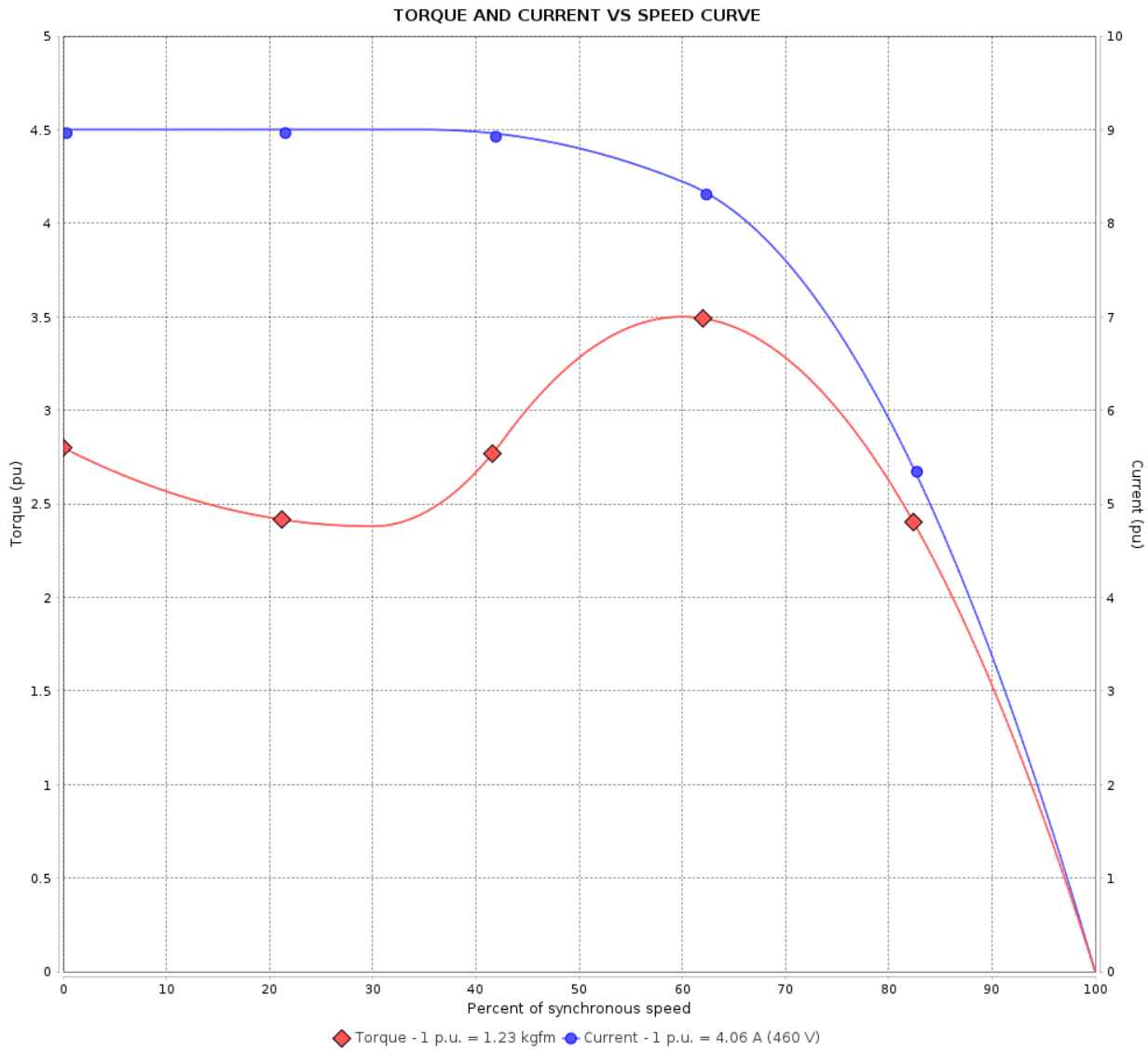
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : MULTIMOUNTING

Product code : 13312431



Performance : 460 V 60 Hz 4P

Rated current	: 4.06 A	Moment of inertia (J)	: 0.0090 kgm ²
LRC	: 9.0	Duty cycle	: S1
Rated torque	: 1.23 kgfm	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.00
Breakdown torque	: 350 %	Temperature rise	: 80 K
Rated speed	: 1745 rpm	Design	: N

Locked rotor time : 28s (cold) 16s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		8 / 23		
Date	17/04/2023			

LOAD PERFORMANCE CURVE

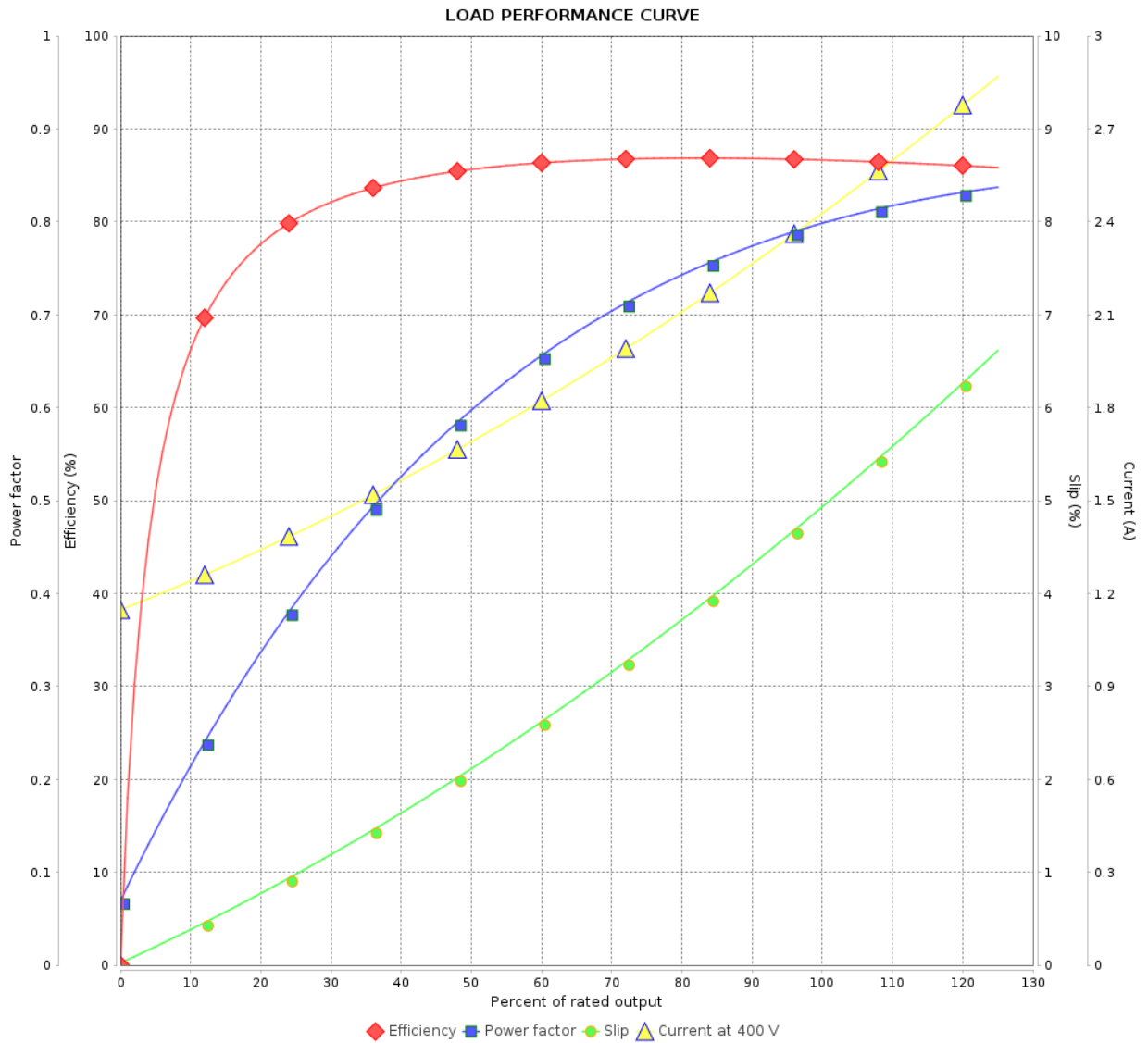
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : MULTIMOUNTING

Product code : 13312431



Performance : 400 V 50 Hz 4P

Rated current : 2.41 A
 LRC : 7.2
 Rated torque : 1.50 kgfm
 Locked rotor torque : 229 %
 Breakdown torque : 280 %
 Rated speed : 1425 rpm

Moment of inertia (J) : 0.0090 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by				
Date				

LOAD PERFORMANCE CURVE

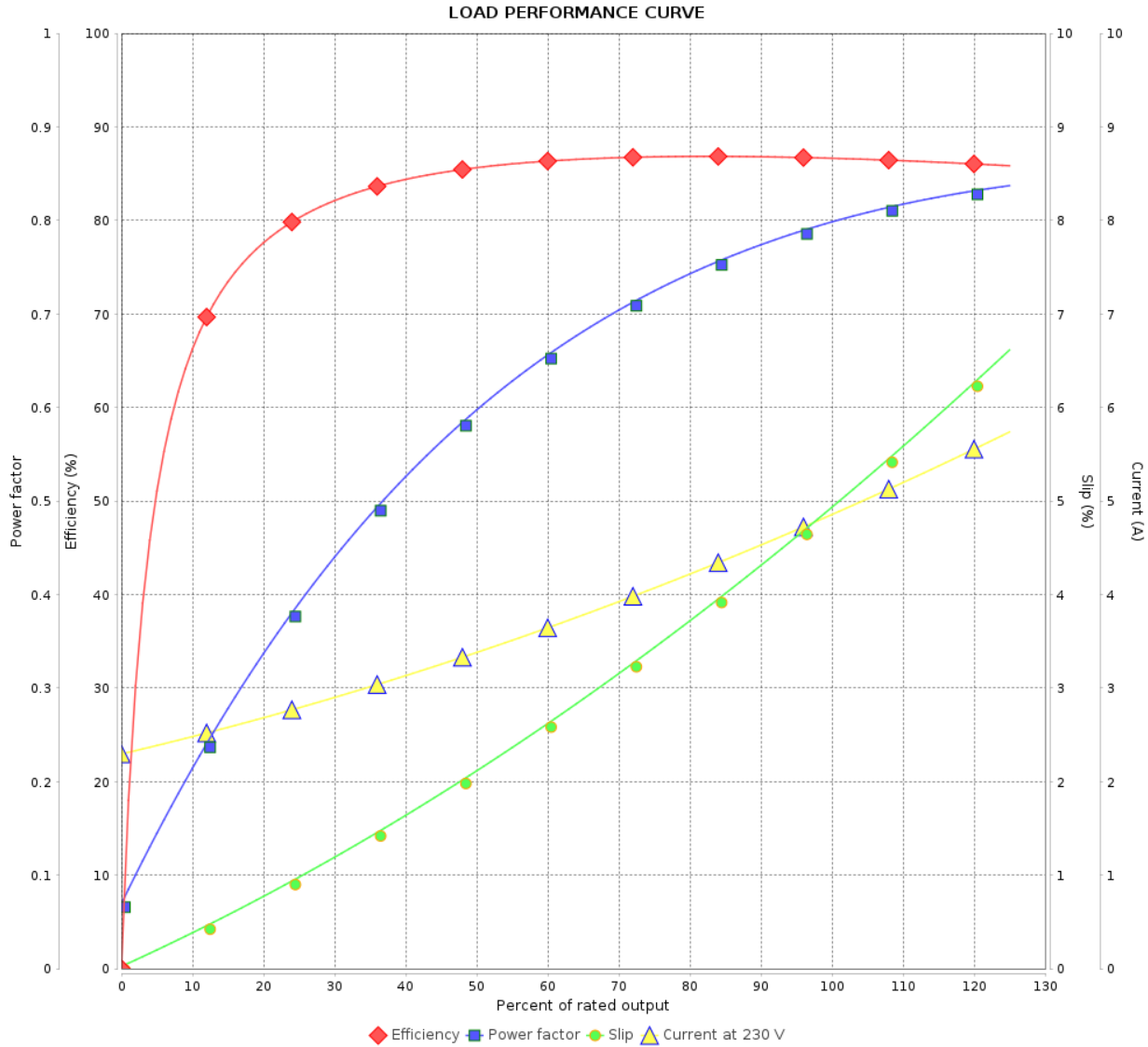
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : MULTIMOUNTING

Product code : 13312431



Performance : 230 V 50 Hz 4P

Rated current	: 4.82 A	Moment of inertia (J)	: 0.0090 kgm ²
LRC	: 7.2	Duty cycle	: S1
Rated torque	: 1.50 kgfm	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 1425 rpm	Design	: N

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 10 / 23	Revision
Checked by				
Date	17/04/2023			

LOAD PERFORMANCE CURVE

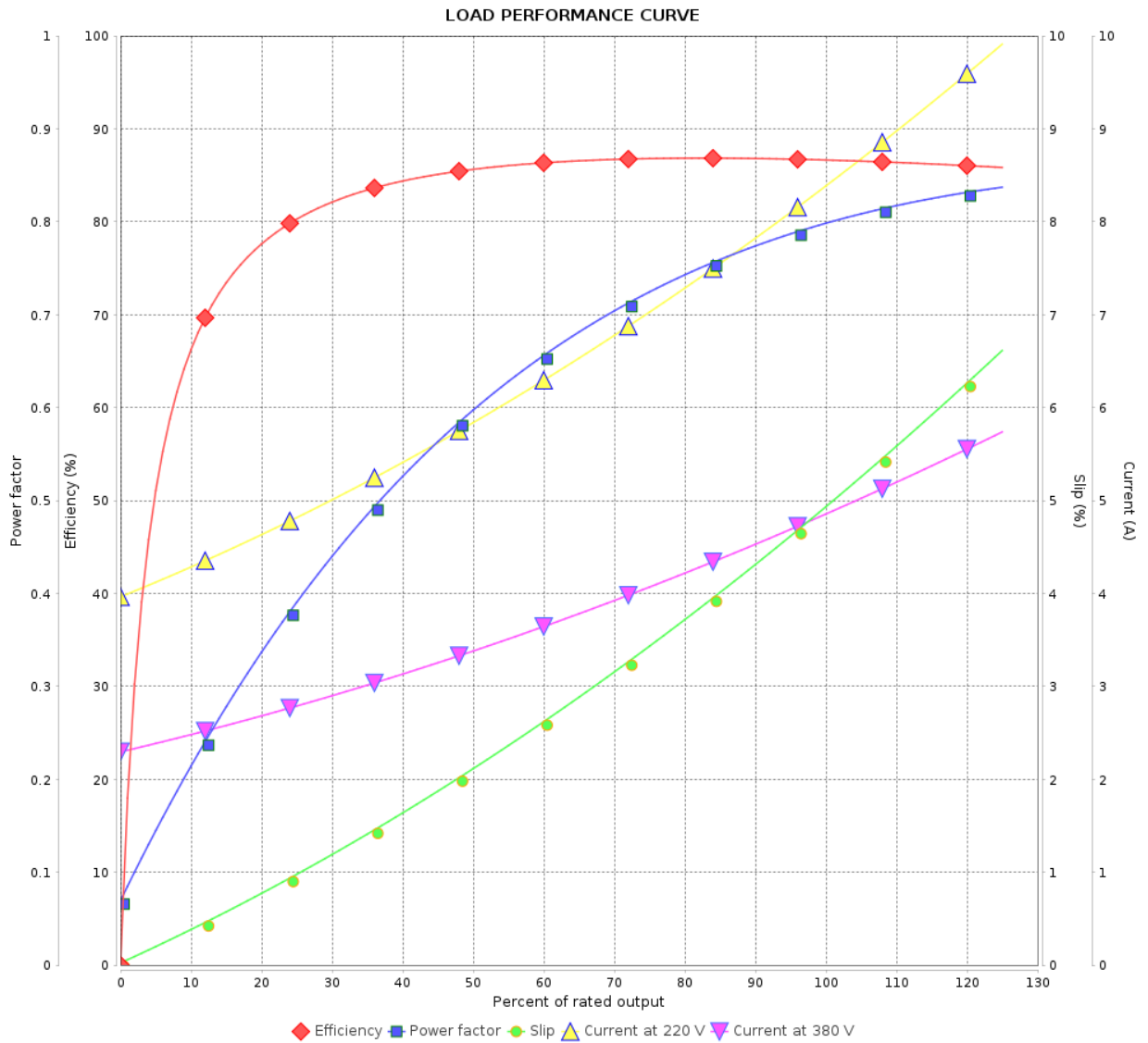
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : MULTIMOUNTING

Product code : 13312431



Performance : 220/380 V 50 Hz 4P

Rated current : 8.33/4.82 A
 LRC : 7.2
 Rated torque : 1.50 kgfm
 Locked rotor torque : 229 %
 Breakdown torque : 280 %
 Rated speed : 1425 rpm

Moment of inertia (J) : 0.0090 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		11 / 23		
Date		17/04/2023		

LOAD PERFORMANCE CURVE

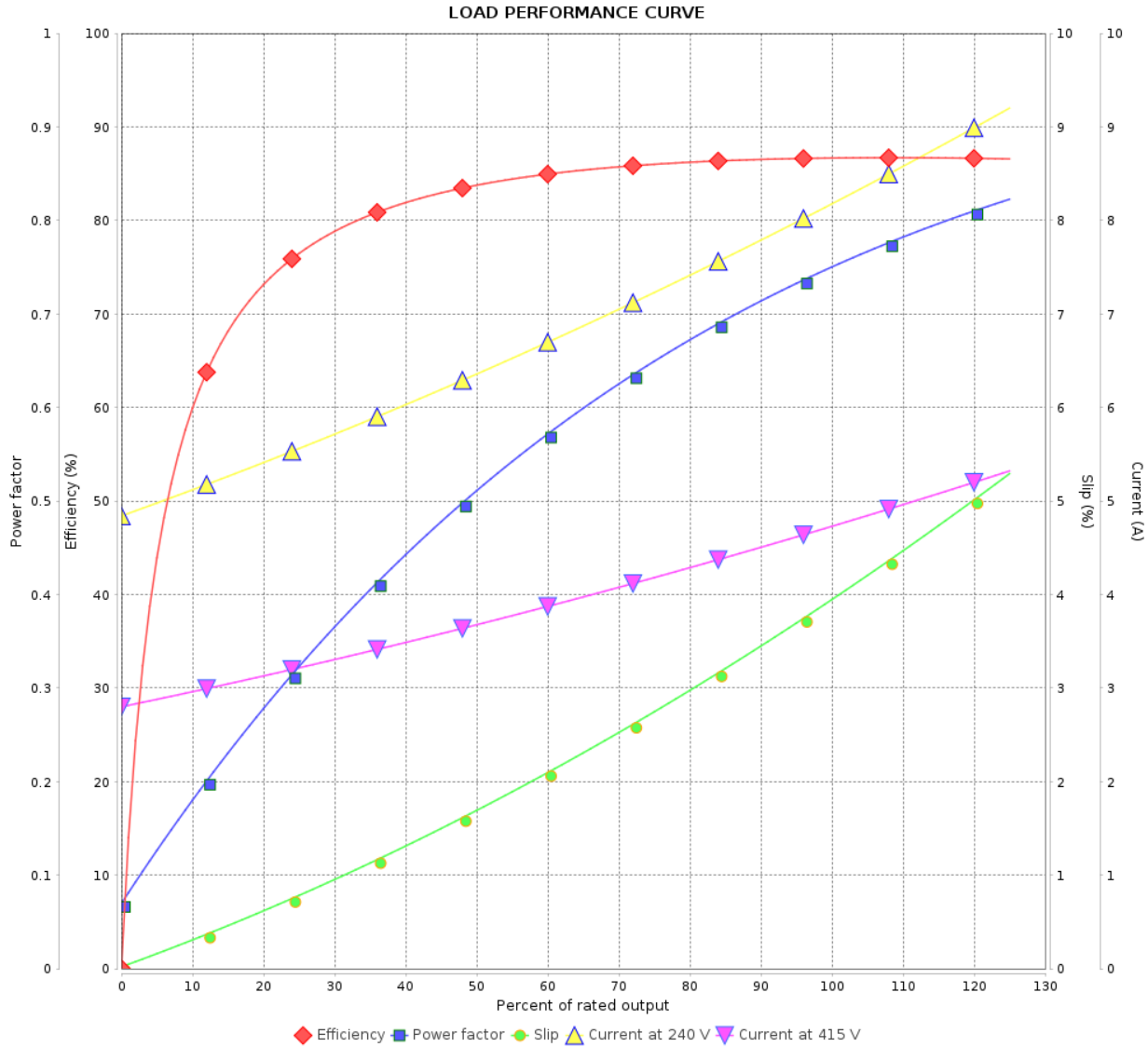
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : MULTIMOUNTING

Product code : 13312431



Performance : 240/415 V 50 Hz 4P

Rated current : 8.14/4.71 A
 LRC : 8.0
 Rated torque : 1.49 kgfm
 Locked rotor torque : 270 %
 Breakdown torque : 320 %
 Rated speed : 1440 rpm

Moment of inertia (J) : 0.0090 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by				
Date				

LOAD PERFORMANCE CURVE

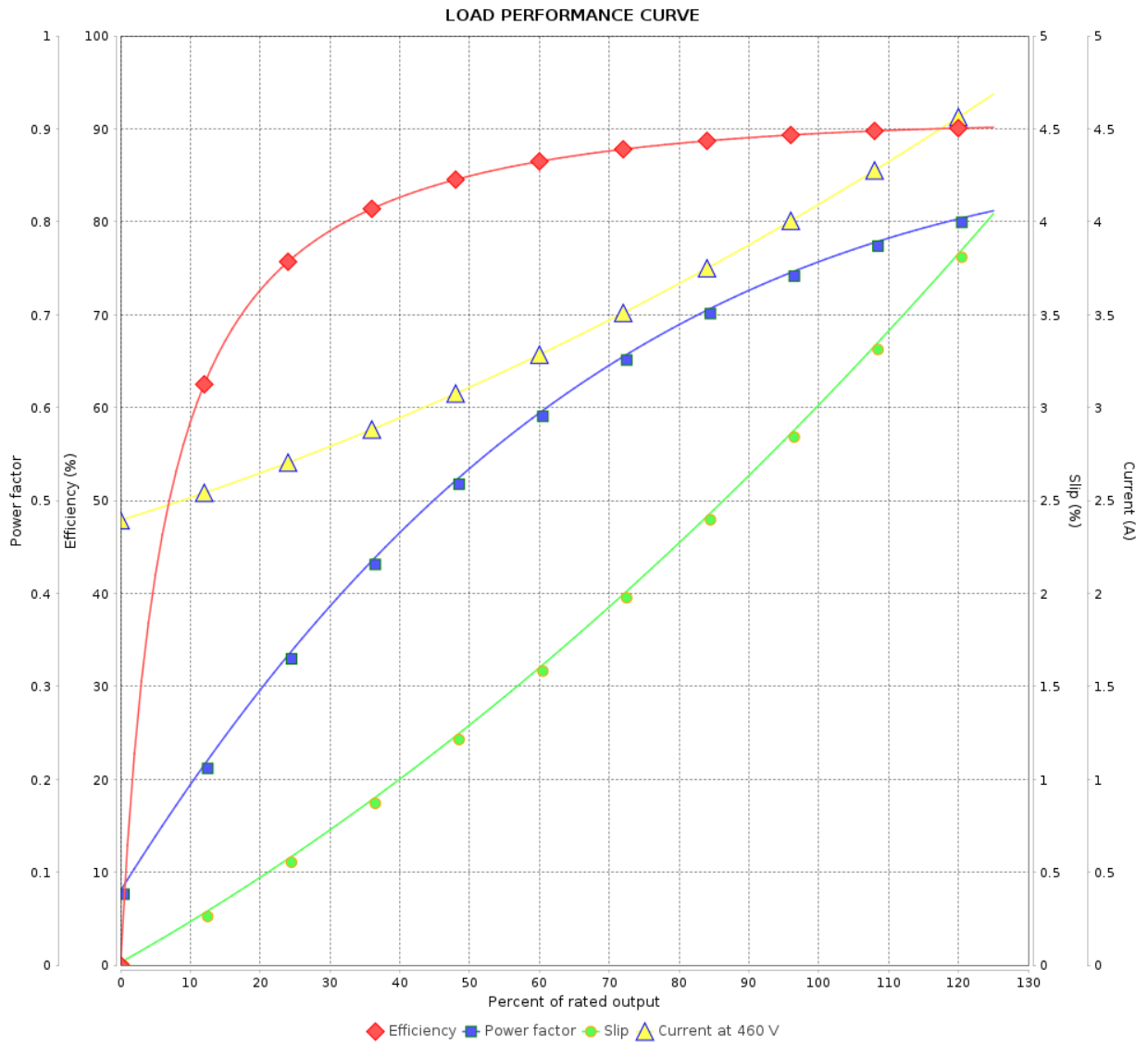
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : MULTIMOUNTING

Product code : 13312431



Performance : 460 V 60 Hz 4P

Rated current : 4.06 A
 LRC : 9.0
 Rated torque : 1.23 kgfm
 Locked rotor torque : 280 %
 Breakdown torque : 350 %
 Rated speed : 1745 rpm

Moment of inertia (J) : 0.0090 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by				
Date				

THERMAL LIMIT CURVE

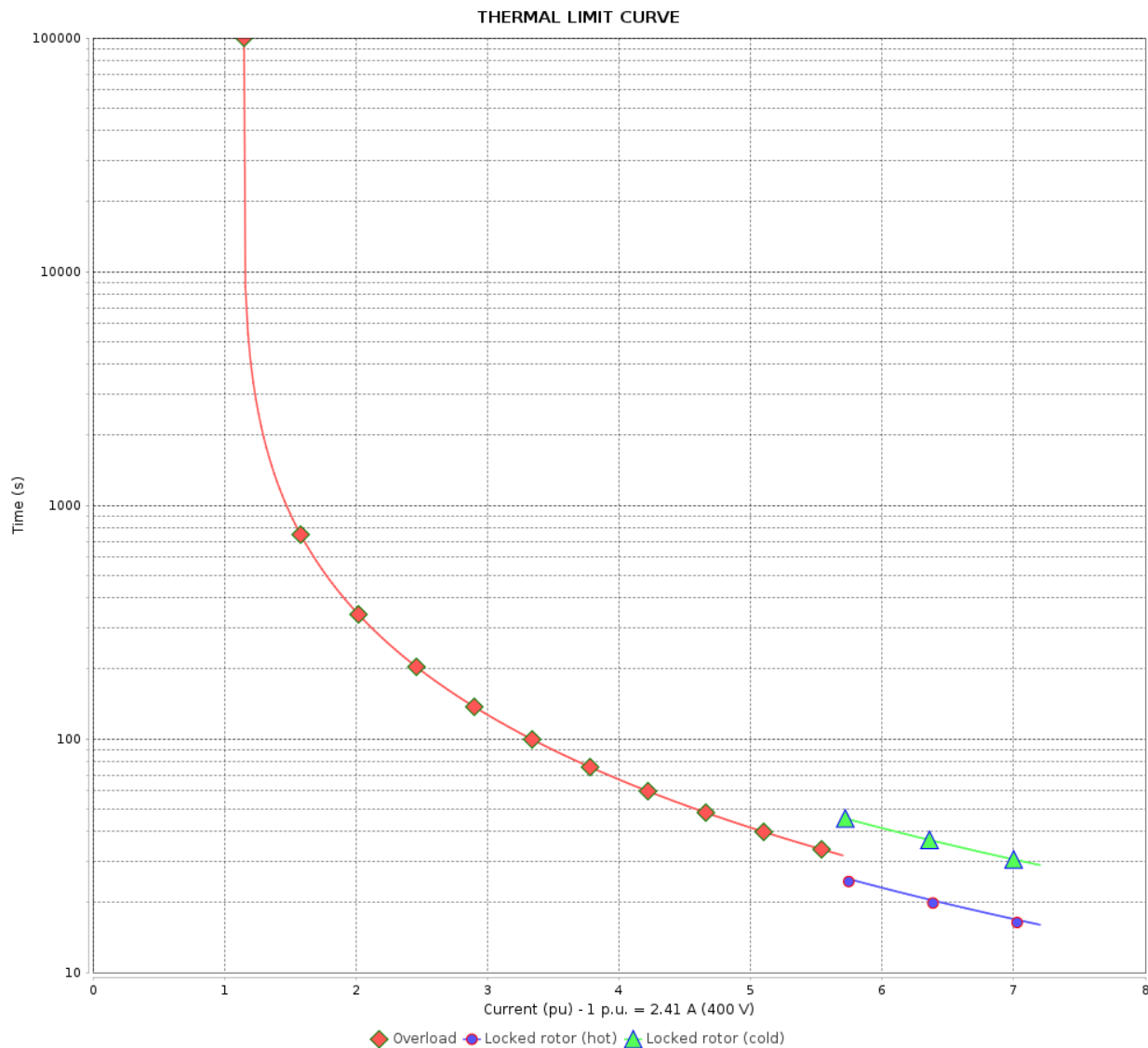
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : MULTIMOUNTING

Product code : 13312431



Performance : 400 V 50 Hz 4P

Rated current	: 2.41 A	Moment of inertia (J)	: 0.0090 kgm ²
LRC	: 7.2	Duty cycle	: S1
Rated torque	: 1.50 kgfm	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 1425 rpm	Design	: N

Heating constant

Cooling constant

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 14 / 23	Revision
Checked by				
Date	17/04/2023			

THERMAL LIMIT CURVE

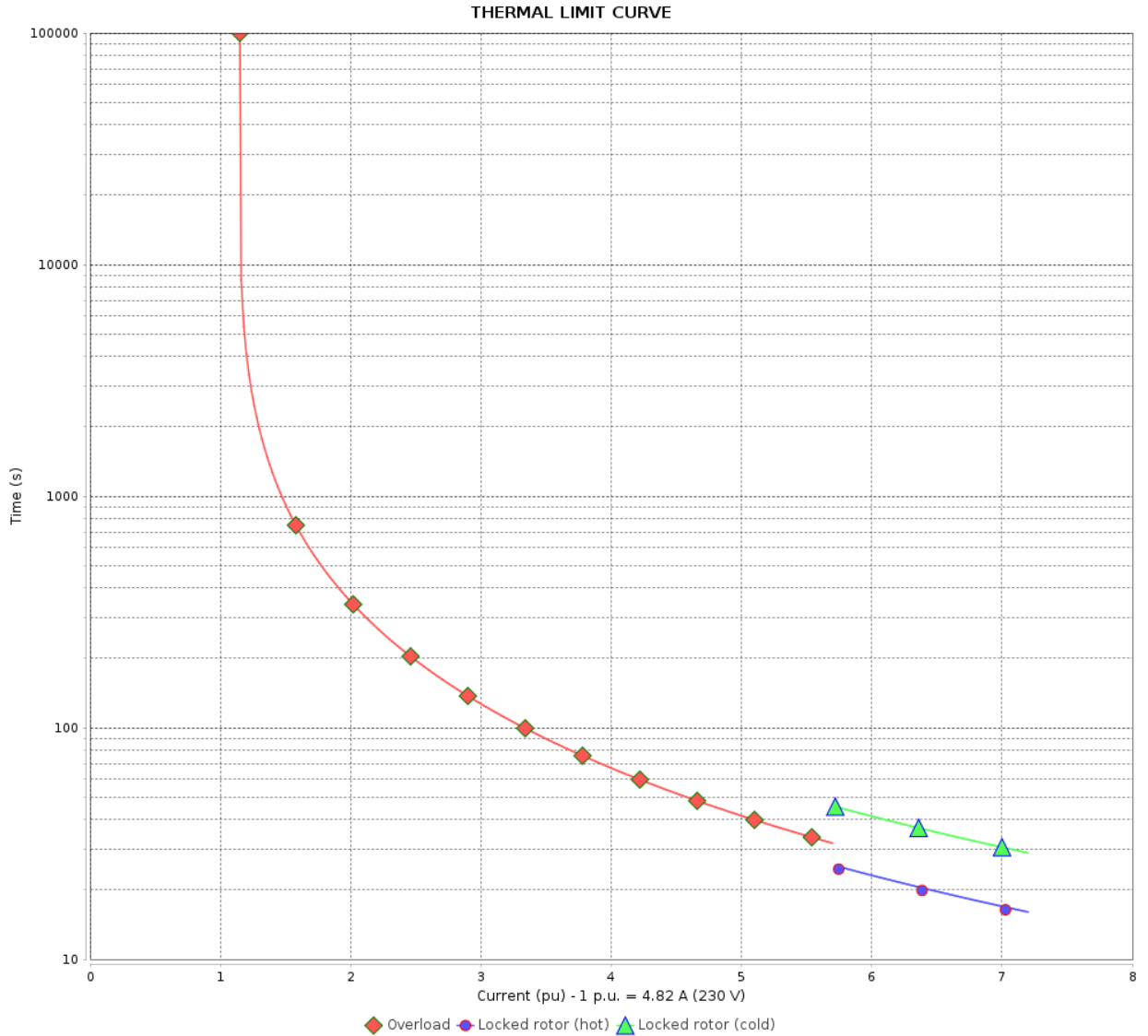
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : MULTIMOUNTING

Product code : 13312431



Performance : 230 V 50 Hz 4P

Rated current	: 4.82 A	Moment of inertia (J)	: 0.0090 kgm ²
LRC	: 7.2	Duty cycle	: S1
Rated torque	: 1.50 kgfm	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 1425 rpm	Design	: N

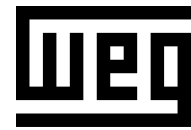
Heating constant

Cooling constant

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 15 / 23	Revision
Checked by				
Date	17/04/2023			

THERMAL LIMIT CURVE

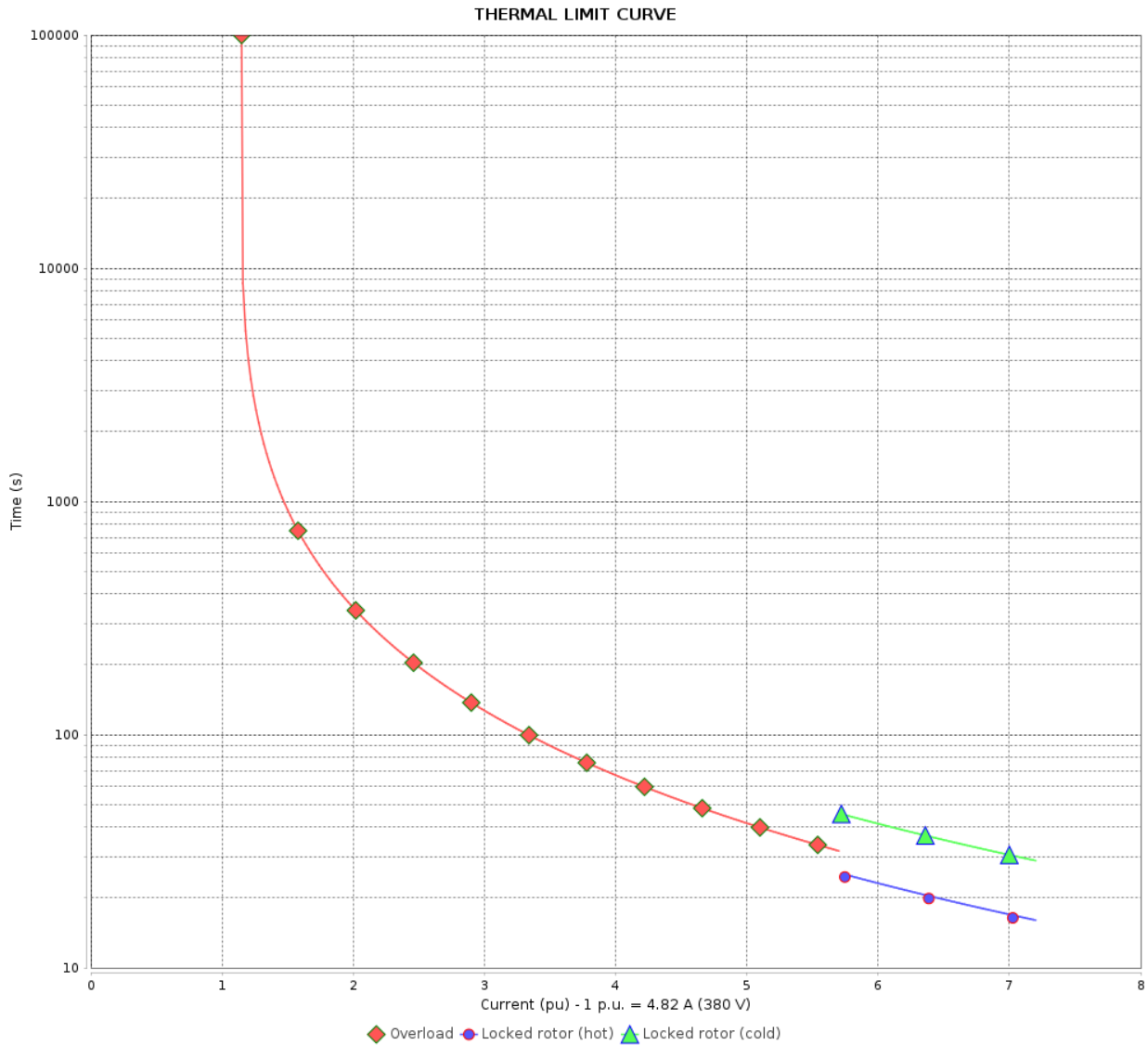
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : MULTIMOUNTING

Product code : 13312431



Performance : 220/380 V 50 Hz 4P

Rated current : 8.33/4.82 A
 LRC : 7.2
 Rated torque : 1.50 kgfm
 Locked rotor torque : 229 %
 Breakdown torque : 280 %
 Rated speed : 1425 rpm

Moment of inertia (J) : 0.0090 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

Heating constant

Cooling constant

Rev.	Changes Summary	Performed	Checked	Date
Performed by	17/04/2023	Page		Revision
Checked by		16 / 23		
Date				

THERMAL LIMIT CURVE

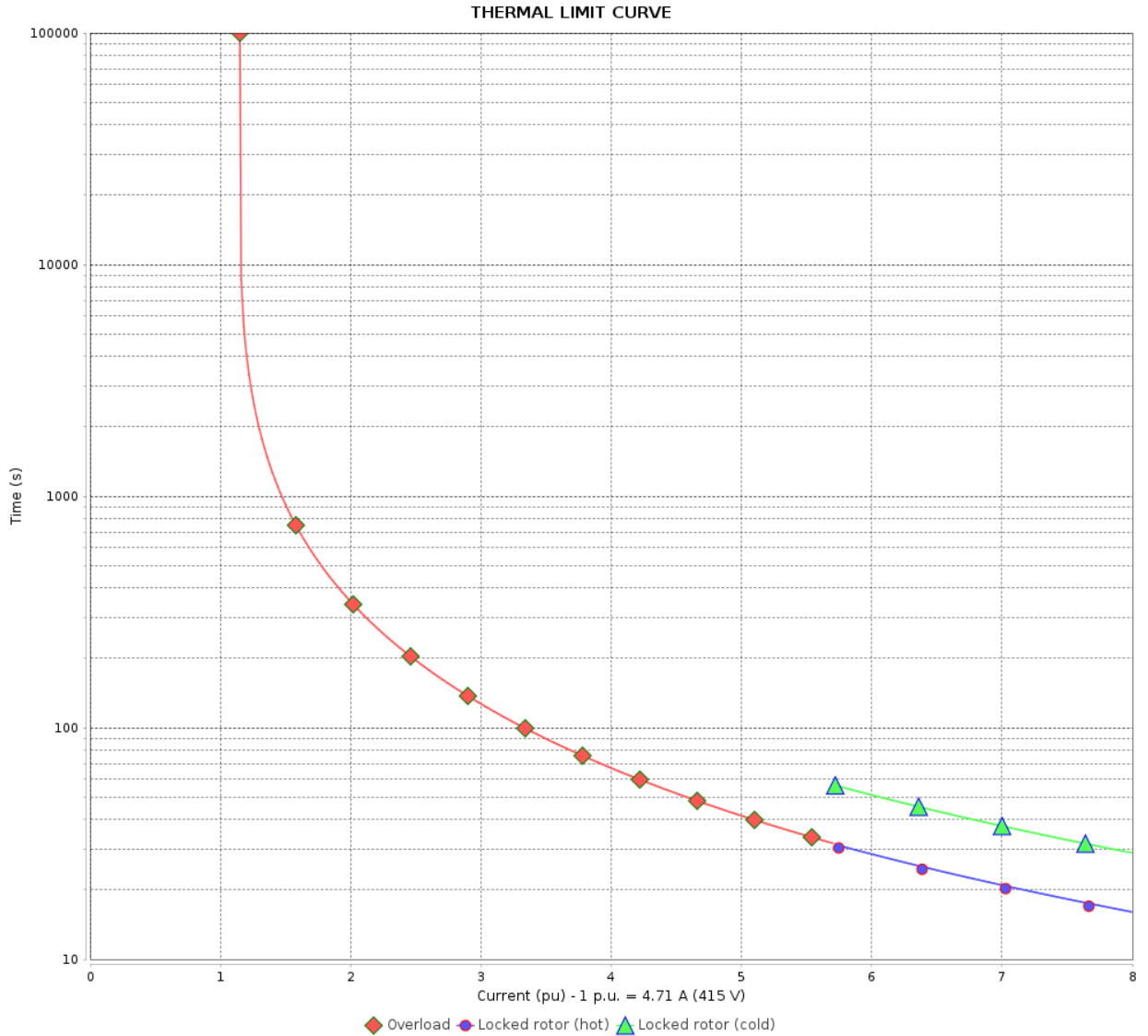
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : MULTIMOUNTING

Product code : 13312431



Performance : 240/415 V 50 Hz 4P

Rated current : 8.14/4.71 A
 LRC : 8.0
 Rated torque : 1.49 kgfm
 Locked rotor torque : 270 %
 Breakdown torque : 320 %
 Rated speed : 1440 rpm

Moment of inertia (J) : 0.0090 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

Heating constant
 Cooling constant

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 17 / 23	Revision
Checked by				
Date	17/04/2023			

THERMAL LIMIT CURVE

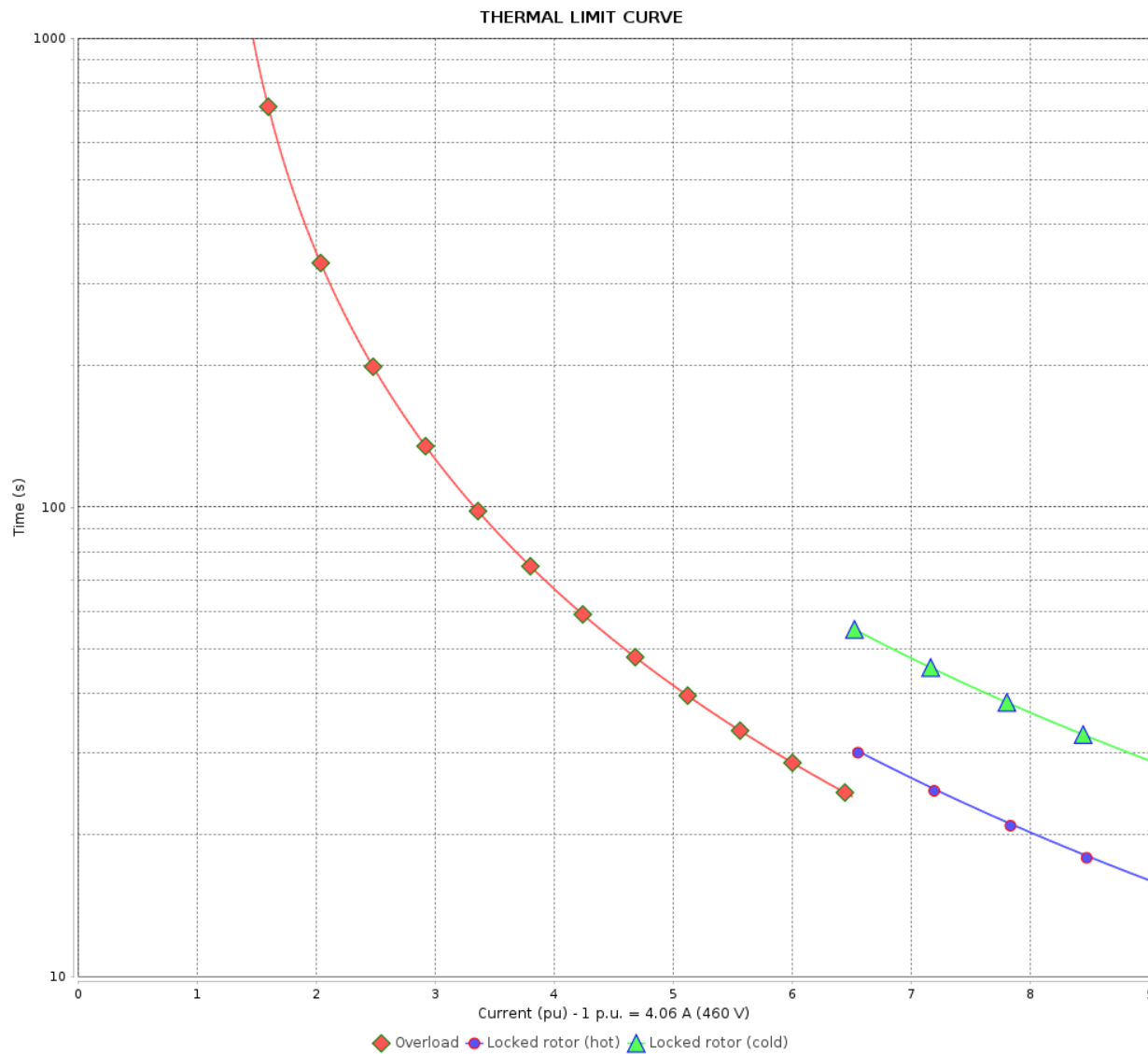
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : MULTIMOUNTING

Product code : 13312431



Performance : 460 V 60 Hz 4P

Rated current	: 4.06 A	Moment of inertia (J)	: 0.0090 kgm ²
LRC	: 9.0	Duty cycle	: S1
Rated torque	: 1.23 kgfm	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.00
Breakdown torque	: 350 %	Temperature rise	: 80 K
Rated speed	: 1745 rpm	Design	: N

Heating constant

Cooling constant

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by			18 / 23	
Date	17/04/2023			

VFD OPERATION CURVE

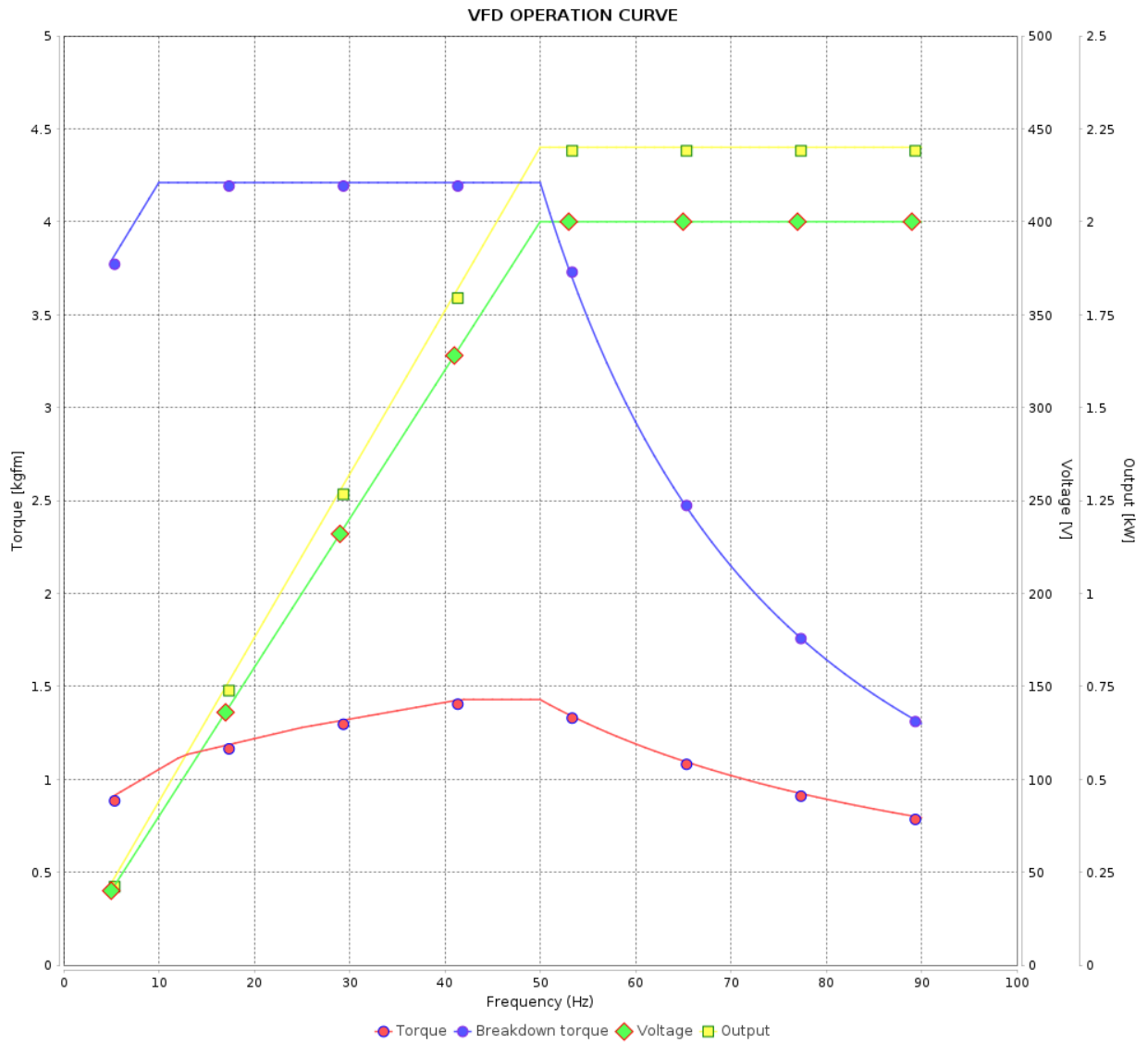
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : MULTIMOUNTING

Product code : 13312431



Performance : 400 V 50 Hz 4P

Rated current : 2.41 A
 LRC : 7.2
 Rated torque : 1.50 kgfm
 Locked rotor torque : 229 %
 Breakdown torque : 280 %
 Rated speed : 1425 rpm

Moment of inertia (J) : 0.0090 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by				
Date				

VFD OPERATION CURVE

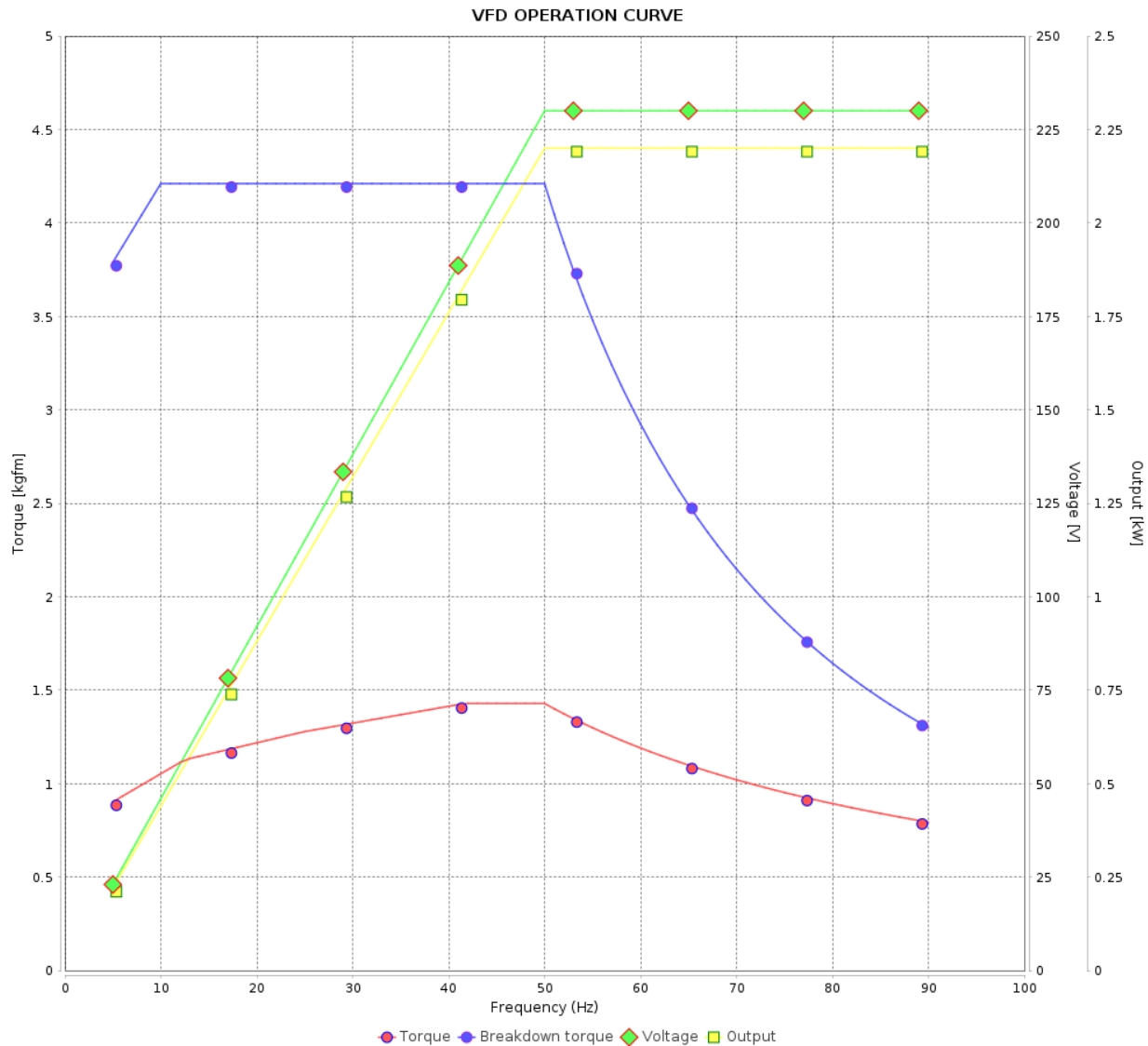
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : MULTIMOUNTING

Product code : 13312431



Performance : 230 V 50 Hz 4P

Rated current	: 4.82 A	Moment of inertia (J)	: 0.0090 kgm ²
LRC	: 7.2	Duty cycle	: S1
Rated torque	: 1.50 kgfm	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 1425 rpm	Design	: N

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by			20 / 23	
Date	17/04/2023			

VFD OPERATION CURVE

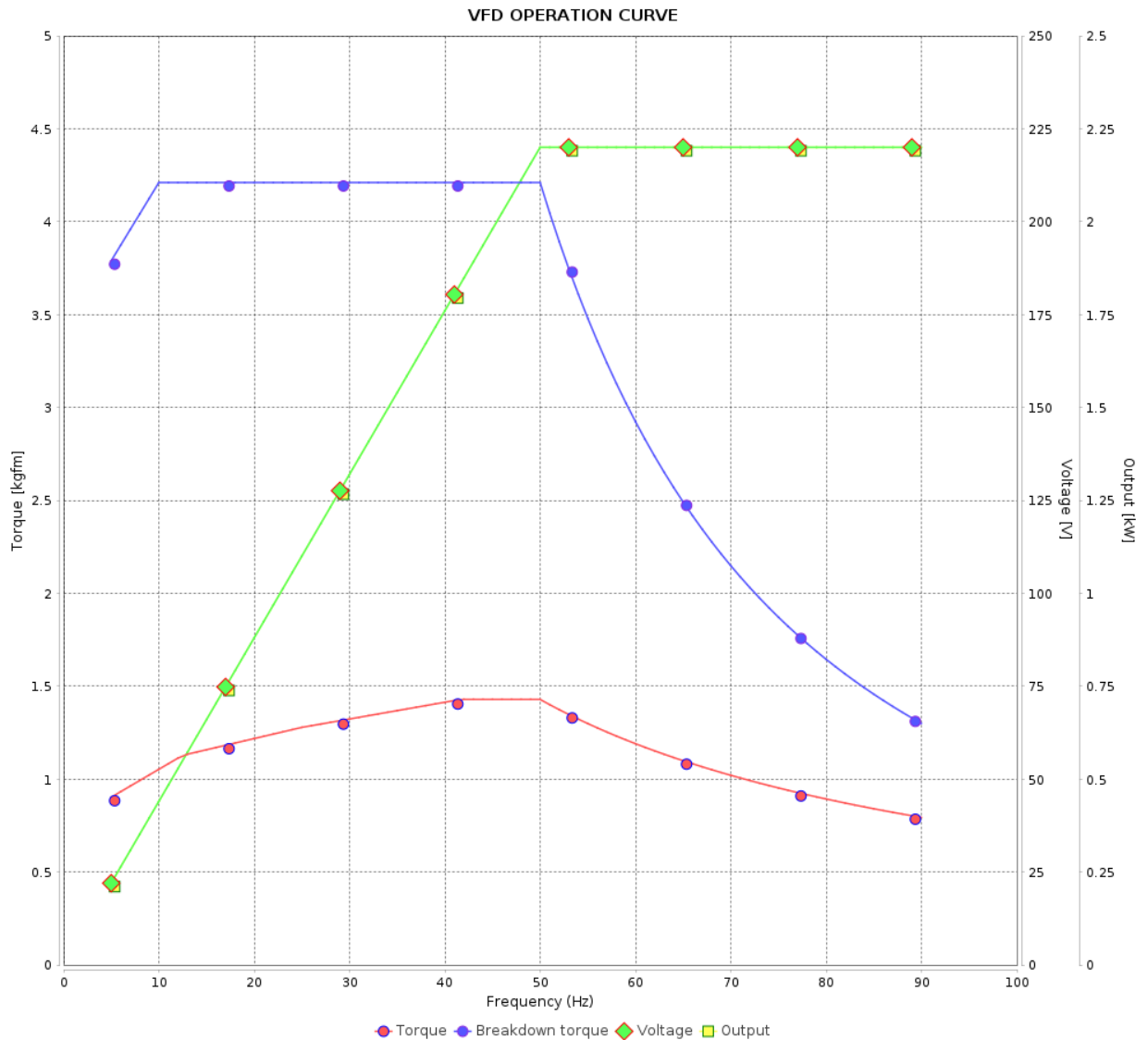
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : MULTIMOUNTING

Product code : 13312431



Performance : 220/380 V 50 Hz 4P

Rated current : 8.33/4.82 A
 LRC : 7.2
 Rated torque : 1.50 kgfm
 Locked rotor torque : 229 %
 Breakdown torque : 280 %
 Rated speed : 1425 rpm

Moment of inertia (J) : 0.0090 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		21 / 23		
Date		17/04/2023		

VFD OPERATION CURVE

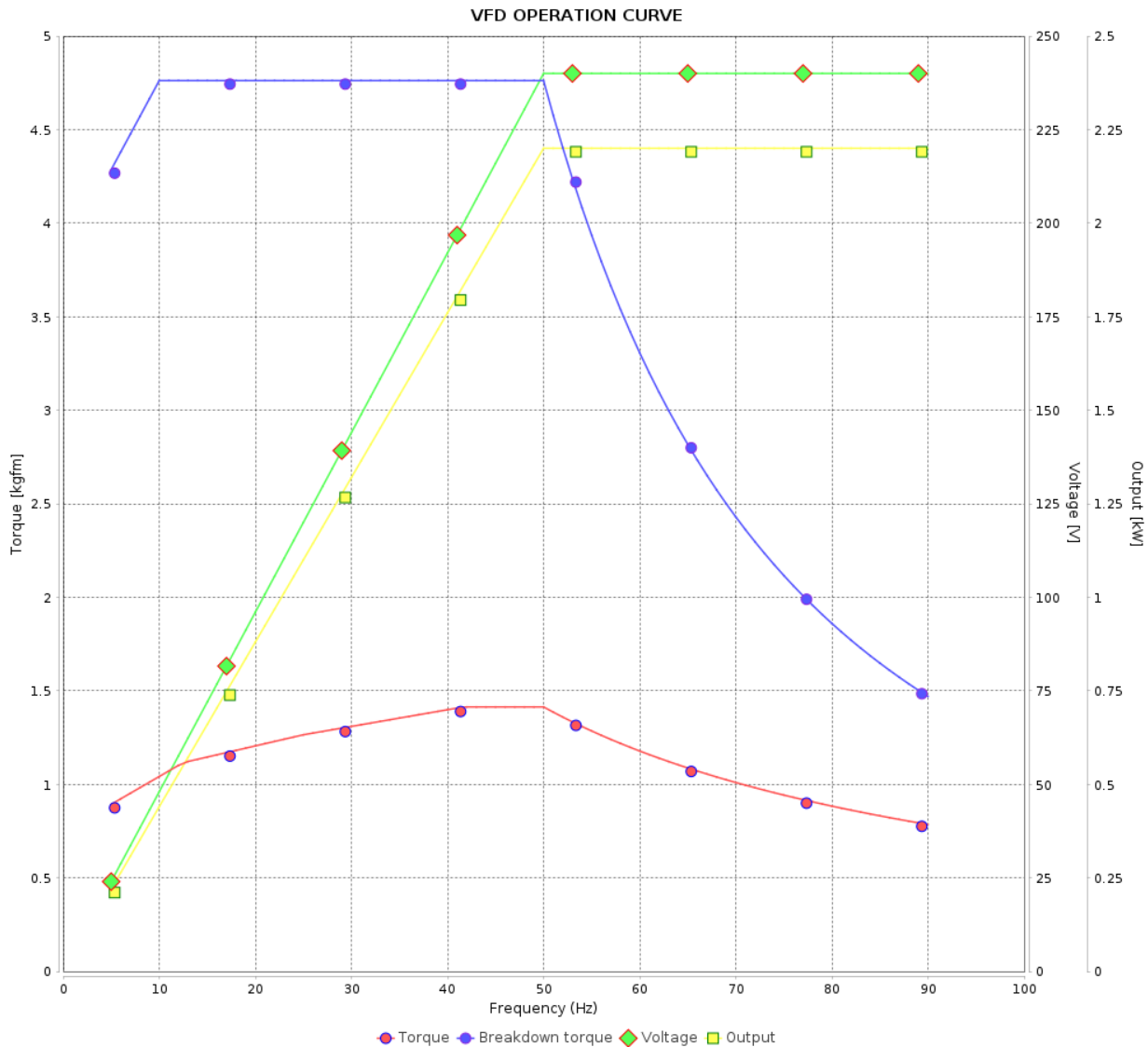
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : MULTIMOUNTING

Product code : 13312431



Performance : 240/415 V 50 Hz 4P

Rated current : 8.14/4.71 A
 LRC : 8.0
 Rated torque : 1.49 kgfm
 Locked rotor torque : 270 %
 Breakdown torque : 320 %
 Rated speed : 1440 rpm

Moment of inertia (J) : 0.0090 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by				
Date				

VFD OPERATION CURVE

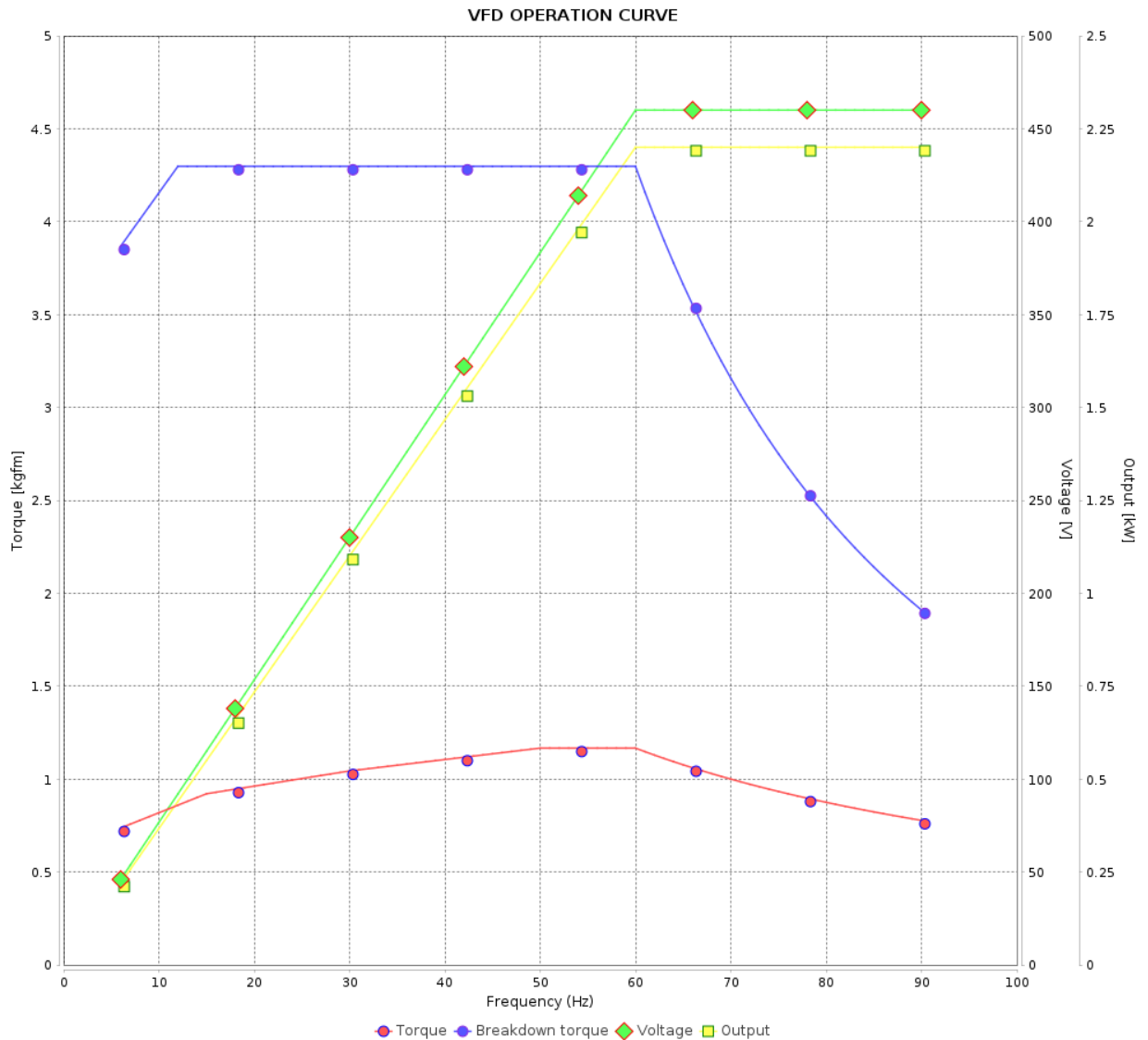
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : MULTIMOUNTING

Product code : 13312431



Performance : 460 V 60 Hz 4P

Rated current : 4.06 A
 LRC : 9.0
 Rated torque : 1.23 kgfm
 Locked rotor torque : 280 %
 Breakdown torque : 350 %
 Rated speed : 1745 rpm

Moment of inertia (J) : 0.0090 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by				
Date				